NOTE VI.

ON SOME LANDPLANARIANS OF THE GENUS BIPALIUM FROM THE LEYDEN MUSEUM OF NATURAL HISTORY

BY

Dr. J. C. C. LOMAN.

(With two figures).

Landplanarians are known from almost all parts of the world which have a hot but at the same time a damp climate. So they are met with in Brazil, in South-Africa, in South-Asia, in Australia and in New-Zealand, whereas in the colder regions of the globe merely few species exist.

They avoid direct sunlight and are only found in shadowed places, under stones, under the bark of trees, under rotten wood a. s. o., feeding on small snails and earthworms.

As to the anatomy and systematical position of the Landplanarians still much is to be done, most of them being unsatisfactorily described. The anatomy of but very few forms has been worked out, and of the greater part the inner structure is totally unknown. At the present time, considering the Landplanarians as a Family, perhaps about ten Genera are to be discerned, but still very little can be said of their mutual relation. Among these genera are three, viz. *Geoplana*, *Rhynchodemus* and *Bipalium* with many species, most of which are only described as to their lengths, the number of their eyes, the form and colouring of their bodies and the stripes which mark their backsides.

A careful examination of many species, and, in the first place, a minute comparison of their anatomy, will undoubtedly lead to a good systematical division, which at this moment cannot yet be given.

The genus *Bipalium*, which is characterized by a well-developed semilunar head with numerous eyes, occurs in South- and East-Asia and in the Malay Archipelago. A single species, *Bipalium kewense*, found in 1878 by Moseley in a hot-house in Kew-Gardens and undoubtedly imported together with exotic plants, has since been found in Berlin, Sydney and Cape-town: its original habitat however is still unknown.

The genus *Geoplana* has been found in Asia, Australia, South-Africa and South-America in numerous species and it misses the lunate head of *Bipalium*, the forepart being mostly obtusely rounded. It agrees with *Bipalium* in having many eyes.

As for *Rhynchodemus*, the genus with only two eyes and a body gradually tapering at the two ends, many new species were, during the last years, recorded from different parts of Australia, besides the already known species from North- and South-America, Eastern Asia, Samoa and South-Africa.

Prof. Dr. L. von Graff in Graz, who is at this time preparing a monograph of the Landplanarians and who, for this purpose, has been collecting a huge stock of specimens from all parts of the world, announces in a small paper 1) 125 species belonging to *Geoplana*, 72 to *Rhynchodemus* and 74 to *Bipalium*. Considering these large numbers, we should not wonder but a careful examination of so many forms of different localities will considerably increase our knowledge. Prof. von Graff kindly wrote to me, that his investigations urged him to divide the Landplanarians (Terricola) into 5 Families with 18 Genera.

---

1) L. von Graff. Die von Dr. E. Modigliani in Sumatra gesammelten Landplanarien, in: Annali del Museo Civico di Storia Naturale di Genova. 2e Ser. Vol. XIV, 1894.

In the following lines I shall give an account on several species of the Leyden Museum belonging to the genus *Bipalium*, all of which were obtained from Java or the neighbouring isles. Among them two species proved to be new to science.

1. *B. marginatum* K. & v. H.

This species was first described and figured in a previous communication [1]) from a specimen said to have been captured in the forests of Bantam in West-Java (1822). Afterwards (1888) it has been found at Buitenzorg by Prof. Max Weber, who brought home several specimens from his journey. A specimen, now in the Leyden Museum, has been collected in 1890 by Dr. J. F. van Bemmelen in the same locality.

2. *B. javanum* Loman.

The area of distribution of this common species is remarkably well defined and seems to be rather small. It has been found in great abundance only in the dark forests of the mountainous parts of West-Java and in those of the isle of »Dwars in den weg" in the Sunda-strait, geologically belonging to West-Java. Neither on the volcanoes of Middle-Java, nor on those of East-Java a single specimen could be taken.

One specimen collected by myself in South-West-Java in 1882.

3. *B. vittatum* K. & v. H.

This species [2]) seems to inhabit the descents of the West-Java mountains in the lower districts, f. i. Buitenzorg, where the preceding species is very rare. I never met with it in higher regions.

Many specimens caught by Dr. J. F. v. Bemmelen in 1890.

---

1) Loman. Ueber den Bau von *Bipalium*, etc. in: Bijdragen tot de Dierkunde, uitgegeven door het Genootschap Natura Artis Magistra. Afl. 14, 1887, p. 65 (and „Nachschrift"), pl. I, fig. 6.

2) l. c. p. 84, pl. I, fig. 5.

4. *B. Simrothi*[1], n. sp. (fig. 1).

This Bipalium belongs to the species with a short and broad body and has a well-developed head, which does not surpass the breadth of the whole body, being only 6 mm. The colour of the back is of a very dark brown, almost black, with a reddish-brown pattern. The latter consists of a narrow longitudinal stripe, originating from two large lateral spots on the head and running to the tail of the animal, the last third being abruptly enlarged to an almost oblong quadrangle. Five transverse bands of the same colour occur between the head and the quadrangle, of which the third does not reach the sides of the body.

Ventral colouring with the broad ambulacral line of a yellowish white. The mouth lies on the middle, the genital aperture on about two thirds of the entire body-length.

Length 26 mm.; greatest breadth 7 mm.

A single specimen captured in 1894 by Mr. A. L. van Hasselt on the Natuna-islands in the Southern Chinese Sea.

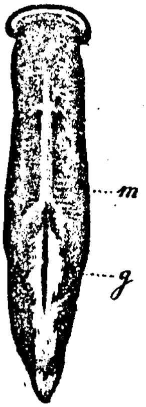

Fig. 2.
B. expeditionis × 2½.

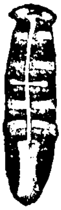

Fig. 1.
B. Simrothi nat. size.

m. mouth; *g.* genital aperture.

---

[1] On asking Prof. von Graff whether this species was also new to him, he informed me that it had already been described and figured by him under the name of *B. Simrothi*, but that it was not yet published. For this reason I feel obliged to accept this name.

5. *B. expeditionis*, n. sp. (fig. 2).

The body of this little new species is, like that of the foregoing, short and broad; the head of the spirit specimen of only moderate size, transverse-oval (probably by contraction). Ground colouring dark brown on the back, beneath of a light brown, but undoubtedly still much clearer in the living animal. The upper side is marked with an irregular median dirty yellow band, narrow at the beginning, about one fourth of the entire length behind the head, broader at the latter half and abruptly broken up by the ground colour in the middle and near the end. A very narrow median black stripe is seen within the yellow band just above the spot where the genital organs lie. On the head is found a sub-marginal line of the same yellow colour and moreover extremely faint indications seem to be the traces of two transverse bands on the forepart of the body.

Length 21 mm.; greatest breadth 5 mm.

The animal was captured on the summit of Mount Damus in the heart of the Sambas-district (Residency of West-Borneo) by Dr. Nieuwenhuis, one of the members of the recent Dutch scientific Borneo-expedition.

Amsterdam, May 1895.